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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,914

01/03/2005

Koichi Sato

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09/11/2008

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EXAMINER

CHEUNG, WILLIAM K

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

09/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,914	<b>Applicant(s)</b> SATO ET AL.	
	<b>Examiner</b> WILLIAM K. CHEUNG	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. In view of the argument filed August 27, 2008, the amendment after final has been entered. Claims 1-10, 14-25 have been cancelled. Claims 11-13 are pending.

2. In view of the amendment filed August 27, 2008, the rejection of Claims 11-14, 16-22 under 35 U.S.C. 103(a) as obvious over Sano et al. (US 2003/0144377 A1), is withdrawn.

3. In view of the cancellation of claim 25 and in view of the following 112 rejection, the allowability of Claim 25 is withdrawn.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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11. (Currently Amended) A polymer-containing composition comprising a block polymer compound, water or an aqueous solvent, and a functional material,

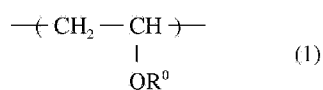
wherein the block polymer compound comprises block segments A, B, and C arranged in succession,

the block segment B is a hydrophilic block segment,

the block segment C is most hydrophilic while the block segment A is most hydrophobic,

the block segment C has an ionic group or an acidic group, and

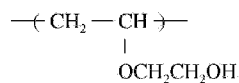
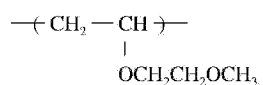
the block segment C is a repeating unit represented by the following general formula (1):



wherein  $\text{R}^0$  represents  $-\text{X}-(\text{COOH})_r$  or  $-\text{X}-(\text{COO-M})_r$ ; X represents a linear, branched or cyclic alkylene group with 1 to 20 carbon atoms,  $-(\text{CH}(\text{R}^5)-\text{CH}(\text{R}^6)-\text{O})_p-(\text{CH}_2)_m-\text{CH}_{3-r}$ ,

$-(\text{CH}_2)_m-(\text{O})_n-(\text{CH}_2)_q-\text{CH}_{3-r}$  or a structure in which at least one of methylene groups therein is replaced by a carbonyl group or an aromatic ring structure; r represents 1 or 2; p represents an integer from 1 to 18; m represents an integer from 0 to 35; n represents 1 or 0; q represents an integer from 0 to 17; M represents a monovalent or polyvalent cation; and  $\text{R}^5$  and  $\text{R}^6$ , which may be the same or different, each independently represent an alkyl group,

wherein the block segment B is a repeating unit represented by either one of the following formulae:



Claim 11 (line 3, 6), the recitations "A" are considered indefinite because they are neither defined in the claims nor in the specification. Therefore, one of ordinary skill in art would not know what "A" is. Although claim 11 (line 7) indicates that "A" should be the most hydrophobic among the components "A", "B", and "C", one of ordinary skill in art would not know what type of monomers would be considered the most hydrophobic that are within the claimed scope of the claimed invention. The examiner acknowledges that page 12 to 14, 17 disclose a list of monomers that are potential monomeric candidates for "A", "B", or "C", but fail to disclose what type of monomers can be used as "A". Applicants must recognize that since the specification fail to indicate the relative hydrophobicity of the disclosed monomers in a specific order, one of ordinary skill would not know which of the monomers disclosed can be considered the most hydrophobic relative to the "B" and "C" that are being claimed.

Although the working examples disclose a specific monomer that can be used as component "A", the working examples fail to set the metes and bound of what type of monomers can be considered "A".

If applicants want to claim the monomers that are disclosed in the working examples as component "A", applicants should recite the specific monomer in the claims since the features from the specification can not be read into the claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571)

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272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William K Cheung/  
Primary Examiner, Art Unit 1796

William K. Cheung, Ph. D.

Primary Examiner

September 8, 2008